

Appl. No. 09/784,234

REMARKS

Claims 67-72 are added. Claims 60-72 are pending in the application.

Claims 60-66 stand rejected under 35 U.S.C. § 103 as being unpatentable over Dunlop, U.S. Patent No. 5,590,389 in view of Weber, U.S. Patent No. 4,786,469. The Examiner is reminded by direction to MPEP § 2143 that a proper obviousness rejection has the following three requirements: 1) there must be some suggestion or motivation to modify or combine reference teachings; 2) there must be a reasonable expectation of success; and 3) the combined references must teach or suggest all of the claim limitations. Claims 60-66 are allowable over the combination of Dunlop and Weber for at least the reason that the references, either individually or as combined, fail to disclose or suggest each and every limitation in any of those claims.

Independent claim 60 recites a physical vapor deposition target comprising an alloy of copper and one or more other elements, the other elements being present at a total concentration of 0.001 at% to 1.0 at% and being selected from the group consisting of Sr, Ba, Sc, and Se. As noted by the Examiner at page 3 of the present action, Dunlop does not disclose or suggest the recited copper based alloy. Additionally, Dunlop does not disclose or suggest the recited physical vapor deposition target comprising the recited copper based alloy. Weber discloses copper based metals comprising additional grain refining elements (col. 2, ll. 3-4). Weber further discloses that the copper based metal must contain a minimum of at least four additional elements, one of which must be either titanium or zirconium (col. 2, ll. 5-23). Weber does not teach or suggest the claim 60 recited other elements being present in a copper alloy at a total concentration of from 0.001 at% to 1.0 at% and being selected from the group consisting of Sr, Ba, Sc and Se.

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Further, Weber does not disclose or suggest the recited physical vapor deposition target comprising the recited alloy of copper and one or more other elements. As combined, Dunlop and Weber fail to disclose or suggest the claim 60 recited target comprising an alloy of copper and one or more other elements selected from the group consisting of Sr, Ba, Sc and Se, the total concentration of elements being from 0.001 at% to less than 1.0 at%. Accordingly, independent claim 60 is not rendered obvious by the cited combination of Dunlop and Weber and is allowable over these references.

Dependent claims 61-66 are allowable over Dunlop in view of Weber for at least the reason that they depend from allowable base claim 60.

New claims 67-72 do not add "new matter" to the application since each is fully supported by the specification as originally filed. Claims 67-72 are supported by the specification at, for example, page 11, line 14 through page 12, line 11. Claims 68 and 69 are additionally supported by the specification at, for example, page 9, lines 9-11; and the tables at page 10.

For the reasons discussed above claims 60-66 are allowable and claims 67-72 are believed allowable. Accordingly, applicant respectfully requests formal allowance of pending claims 60-72 in the Examiner's next action.

The Examiner states at page 2 of the present action that a new oath or declaration is required due to the presence of a handwritten correction on the original declaration. As indicated by the Examiner during a telephone discussion in July 2002, the oath/declaration requirement can be fulfilled by a proper statement by the attorney who prepared and filed the declaration stating that the correction does not alter the affirmations of the oath or declaration, and that the correction was not made subsequent to the execution of the

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document. Applicant includes herewith the statement of Mark S. Matkin, Reg. No. 32,268, attesting to the fact that the subject correction was present on the original declaration upon receipt of the executed document from the inventor and was not entered subsequent thereto, and that such correction does not change the affirmations of the declaration. Accordingly, applicant believes that the declaration submitted on May 2, 2000 is valid in accordance with MPEP § 602.01 and that no substitute declaration is necessary.

Respectfully submitted,

Dated:

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Application Serial No. 09/784,234
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Inventor..... Nagano, S.
Assignee..... Honeywell International Inc.
Group Art Unit..... 1742
Examiner Ip, S.
Attorney's Docket No. 30-5000-(4015)-DIV1
Title: Conductive Integrated Circuit Metal Alloy Interconnections, Electroplating Anodes,
Metal Alloys for Use as a Conductive Interconnection in an Integrated Circuit, and
Physical Vapor Deposition Targets

**VERSION WITH MARKINGS TO SHOW CHANGES MADE ACCOMPANYING
RESPONSE TO JULY 2, 2002 OFFICE ACTION**

In the Claims

The claims have been amended as follows. Underlines indicate insertions and
~~strikeouts~~ indicate deletions.

Claims 67-72 are added.

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